Serving Diverse Populations With Recycling:

A Model for Local Government Recycling and Waste Reduction

Overview

Many California communities have large diverse populations. These include multi-ethnic residents, residents who do not speak English or for whom English is not their first language, and transient populations (students and tourists). Also counted in the diverse population group are low-income individuals and families, immigrants, senior citizens, and physically challenged residents.

Local governments can raise awareness for and increase participation in their recycling programs by performing outreach and designing a recycling program with community diversity in mind. Such outreach and programming can be an important factor in reaching the 50 percent recycling rate required by the California Integrated Waste Management Act (AB 939, Sher, Chapter 1095, Statutes of 1989 as amended [IWMA]).

The residential recycling rate in El Monte, Calif., increased from 6 percent in 1994 to 34 percent in 1998. The city recognized its cultural differences and used a variety of approaches to deliver its message, increasing diversion. The city uses bilingual waste auditors and writes follow-up recommendations in appropriate languages.

The impact of a community's outreach program is minimal if it does not reach the community. This is especially true of communities with diverse populations. In order for a city to reach its diverse populations, it must tailor its outreach and recycling program to their specific needs.

Diversity presents many barriers that may limit the effectiveness of a city's recycling program. Barriers may include:

• Language. Although outreach material may be physically reaching residents, the material may be interpreted improperly or not at all. The first language of many California residents is not English. In fact, more than 15 percent of California residents either do not

speak English very well or they do not speak it at all.

- Limited access to recycling. Many lowincome residents reside in apartment and multifamily units that do not have recycling services. Or, their services may not be as comprehensive as those offered to singlefamily households. For instance, residents who change their own motor oil may not recycle this material if there is not immediate access to oil recycling or if they are not aware of recycling options.
- Costs or perceived costs. Residents who have lower incomes may shy away from recycling if they believe that recycling costs them money (especially true for pay-as-you-throw [PAYT] trash programs). These residents may also perceive that the city is making money off of their materials and may wonder why they have to pay for this service.
- Transience. Transient populations, such as students and tourists, pose special problems to cities because these populations may be difficult to track and commit to the community's recycling program due to the limited amount of time they spend within the community.
- Age and physical inability to recycle. Not all residents may be able to access the recycling program, or they might find it too difficult to recycle. This is especially true for senior citizens and physically challenged residents, who may be unable to deliver their recyclables to the curb.
- Media breakdown. Not all citizens may receive or have access to recycling outreach materials via the channels through which they are released. For example, low-income residents might not subscribe to the newspaper or cable television or own a computer.

Table 1: 1990 California Demographics

Population	29,760,021
White	20,524,327
Black	2,208,801
American Indian	236,078
Eskimo	2,552
Aleut	3,534
Chinese	704,850
Filipino	731,685
Japanese	312,989
Asian Indian	159,973
Korean	259,941
Vietnamese	280,223
Cambodian	68,190
Hmong	46,892
Loatian	58,058
Thai	32,064
Other Asian	80,195
Hawaiian	34,447
Samoan	31,917
Tongan	7,919
Other Polynesian	1,675
Guamanian	25,059
Other Micronesian	1,566
Melanesian	5,778
Other Pacific Islander	2,238
Other race	3,939,070

Hispanic Origin	7,687,938
White	3,495,201
Black	116,355
American Indian, Eskimo, or Aleut	58,099
Asian or Pacific Islander	135,306
Other race	3,882,977
Persons above 65 years of age	3,135,552
Median family income	\$40,559
Families below the poverty level	9%
Language spoken	
Persons 5 years and over	27,383,547
Speak a language other than English	8,619,334
Spanish speaking	20%
Asian or Pacific Islander speaking	7%
Do not speak English "very well"	4,422,783

Source: 1990 U.S. Census.

This model study sheds some light on how communities can overcome the barriers named on the previous page and spur more recycling among diverse constituents. In particular, it features successful initiatives in El Monte, Monterey Park, San Jose, San Francisco, and Sunnyvale.

Population and Race. According to the California Department of Finance, in 1998 California was home to more than 33 million people. One-quarter of a million people have migrated to the state since 1997. Since 1990 the state population has increased by more than 3 million people.

California contains 471 cities, 95 percent of which gained population in 1997.

The two largest cities in the state are Los Angeles and San Diego, which house almost 5 million of the state's residents. Population projections from the California Department of Finance show that

population over the age of 65 will increase 49 percent by 2040. According to the 1990 U.S. Census, the state's racial makeup consisted of 57 percent white, 26 percent Hispanic, 9 percent Asian and Pacific Islander, 7 percent Black, and less than 1 percent American Indian, Eskimo, or Aleut.

Future population projections by the California Department of Finance suggest that the Hispanic and Asian populations will continue to increase in the state while the number of whites will decrease. The agency projects a racial makeup in 2040 of 30 percent white, 50 percent Hispanic, and 15 percent Asian or Pacific Islander. Many California cities, such as El Monte, with 67 percent of its population of Hispanic origin, already exceed this 2040 projection.

Disabilities. In California, 5 percent of people between the ages of 16 and 64 have either a mobile or self-care limitation. Four percent of people between the ages of 16 and 64 have a work disability that prevents them from working, and 20 percent of persons 65 and over have either a mobile or self-care limitation.

Rentals. According to the 1990 U.S. Census, 36 percent of all occupied housing units in the United States are rentals. In California, 44 percent of all occupied housing units are rentals. Many cities in California contain an even higher percentage of rental units (Berkeley, 56 percent; El Monte, 60 percent; Fresno, 52 percent; Monterey Park, 45 percent; and San Francisco, 66 percent).

Income. In California, 9 percent of all families are below the poverty level, although some cities such as El Monte (18 percent) and Monterey Park (13 percent) exceed this percentage.

Tourism. According to the U.S. Census Bureau, California contained more than 6,000 tourist accommodations in 1997. According to the California Trade and Commerce Agency tourism division, there were 250 million domestic persontrips to and through the state in 1998. Much of this travel took place in Los Angeles, Orange, San Diego, and San Francisco counties.

Targeting Outreach to Special Audiences

Recycling and solid waste coordinators can increase their communities' recycling rates by

reaching out to diverse populations and tailoring their recycling program to accommodate the recycling needs of diverse populations.

Recycling specialists can use many of their current education and outreach techniques on various populations that may be missed by a general approach. These populations may include residents who speak little or no English, low-income persons, tourists, and students.

Residents Who Speak Little or No English

Many cities have released recycling outreach materials in multilingual format. Some cities have produced duplicate copies of their brochures and marketing materials in different languages. Some have produced specialized outreach material in specific languages other than English. Other cities have included the different languages on each individual outreach piece.

The recycling and/or solid waste office can perform a demographic analysis of its city to determine the locations of those who speak little or no English (including Hispanic and Asian populations). They can then target multilingual outreach to those residents.

Following are some examples of how some communities have spread the word about recycling to their diverse residents.

Bellevue, Wash.:

-Produces its recycling brochures and posters in seven different languages (Russian, Spanish, Korean, Cambodian, Chinese, Vietnamese, and Japanese).

El Monte, Calif.

- -Uses bilingual waste auditors to reach its diverse businesses and residents of multifamily units.
- -Distributes a brochure and poster with text in both English and Spanish, side by side, to encourage residents of multifamily buildings to recycle.
- -Has produced three bilingual (Spanish and English) videos on recycling-related issues (business recycling, paper recycling, and household hazardous waste) and has released several bilingual local public service announcements on recycling.

-Mails its new recycling newsletter to businesses and multifamily units (three times a year).

Monterey Park, Calif.

- -Includes a trilingual advertisement on recycling used motor oil in the city's quarterly recreation and parks guide.
- -Displays trilingual education booths at various community and multicultural events.
- -Has developed trilingual brochures on bulky items, plastics, and used oil recycling.

Portland, Ore.

-Has produced outreach materials in ten different languages. Based on a survey of highly used languages in Portland, recycling officials selected Spanish, Vietnamese, Russian, Bosnian, Chinese, Korean, Japanese, Cambodian, and Laotian. Private haulers distribute these translated materials to households. The environmental services department is examining using church services and nonprofit organizations that communicate with refugees—along with English language programs—to distribute translated recycling information.

San Francisco, Calif.

- -Operates a trilingual hotline that gives residents recycling and source reduction information in Cantonese, English, and Spanish.
- -Places advertisements and articles in English, Chinese, and Spanish neighborhood newspapers.
- -Offers various publications written in three languages. Includes environmental shopping, recycling guides, and 14 directories listing various recycling and reuse organizations.
- -Offers a recycling guide for San Francisco restaurants and hotels in English, Chinese, and Spanish.

San Jose, Calif.

-Prints most of its brochures and posters in Spanish, Vietnamese, and English. A few brochures are double-sided with English on one side and either Spanish or Vietnamese on the other.

- -Provides one telephone number that Spanish,-Vietnamese,- and English-speaking residents can dial for answers to their recycling questions.
- -Provides trilingual (Spanish, Vietnamese, and English) stickers for residents to place on their recycling containers.
- -Has created television ads in both Spanish and Vietnamese in order to increase participation in recycling, particularly for collection of household hazardous waste and bulky goods.

Sunnyvale, Calif.

- -Prints its stickers, magnets, and labels for its oil recycling program in both English and Spanish.
- -Sends flyers discussing on-site recycling techniques in two languages to all residents. The flyers are printed so that one side is written in English and the other in Spanish.
- -Releases a variety of posters and doorknob hangings on recycling that are printed in English on one side and Spanish on the other.
- -Offers a bilingual recycling hotline to answer recycling questions of both English and Spanish-speaking residents.

Multifamily Residents

In order to reach much of the low-income population in a community, the recycling or solid waste coordinator can undertake an extensive multifamily education and outreach program. Recycling coordinators can direct outreach materials in multiple languages to apartment managers, perform one-on-one contact to facilitate the distribution of materials, and follow up to make sure that the apartment complex has implemented the requested recycling program.

In Sunnyvale, recycling officials encourage managers of multifamily units to distribute flyers about on-site recycling techniques. They are also encouraged to hang posters in common areas.

- El Monte conducts an extensive multifamily outreach campaign to reach its 60 percent population that resides in rental units. The program includes:
- Identifying property managers and owners and conducting individual meetings with them to help them establish and continue their recycling program.

- Calculating potential collection savings.
- Helping to overcome any space restrictions.
- Providing customizable bilingual tenant brochures and flexible bilingual signage.
- Assisting apartment owners or managers in discussing contracts with their haulers in order to facilitate recycling.

Tourists and Students

Recycling and solid waste coordinators can reach tourist populations by sending multilingual outreach materials to hotels and motels. They can also set up one-on-one outreach with hotel/motel managers for establishing and executing a recycling program. Recycling coordinators can distribute flyers, posters, and other outreach materials throughout community locations where tourists visit. Communities with high tourist populations can clearly label, in multiple languages, all public recycling facilities and containers.

Many colleges have already implemented some form of recycling. Coordinators can establish relationships with colleges in the community and assist the colleges in maximizing their recycling program. They can also help tailor and distribute outreach materials on a continuous basis.

Coordinators can ask the college to help determine the location of students living off-campus and target outreach to these locations more frequently. They can also distribute recycling outreach materials in college-based newspapers and newsletters.

Tailoring Recycling Programs to Reach Diverse Populations

Another way recycling and solid waste coordinators can increase their recycling rates is to adjust their recycling program to accommodate for populations that may be currently missed or not taking advantage of the current program. The following are some techniques communities can offer to extend their recycling programs to their diverse constituents.

Keep the Program Simple

The more complex a recycling program, the greater the possibility of confusion and system failure. Thus, the greater the need for outreach materials to adequately describe the system. This

is especially true for cities with large populations of non-English speaking residents or residents who speak minimal English. The recycling program of the City of Los Angeles is very simple. Residents can place all their recyclables in a single 90-gallon container.

Target Specific Materials

Diversity means that not all residents within a community may generate the same types of materials. Recycling and solid waste coordinators can research diverse neighborhoods and determine and target the types of materials generated to increase recycling rates. The City of Sunnyvale targets used motor oil and oil filters at multifamily properties.

A city study showed that residents of multifamily complexes with higher concentrations of minority tenants—and tenants paying lower rents—were more likely to change their motor oil on the premises. The city began offering on-site used oil collection for multifamily complexes upon request in 1996. Prior to on-site collection, the community set up 13 oil collection centers near apartment buildings to accommodate residents without curbside pickup for oil. The city contacted apartment managers directly in order to better facilitate startup of the program.

Currently 79 percent of targeted complexes are receiving the service. Reports at multifamily complexes seem to indicate that on-site collection of used oil has been successful, with more oil and oil filters being collected since before the program began.

Expansion of Services

Communities can reach much of their diverse populations by expanding their recycling program and outreach to accommodate public housing units, multifamily complexes, hotels and motels, and public facilities. Some communities, such as Sunnyvale and San Jose, have expanded their recycling service to include multifamily dwellings. Other communities have expanded the number of drop-off facilities near low-income neighborhoods.

El Monte has expanded its outreach program to reach 450 of its 475 apartment/condominium complexes and all of its 35 mobile home parks. Recycling officials in San Francisco have increased opportunities for tourists and residents to

recycle with two special receptacles. "Crab catchers"—metal racks for collecting recyclables—and "ecopops"—pyramid-shaped bins with holes for collecting soda pop cans and bottles—are attached to most of the public waste bins in the city.

Providing Special Pickup Services

Physically challenged residents can more easily participate in their community's recycling program if program officials allow drivers to perform special pickup services. Palo Alto recently began a program for residents who are physically unable to cart their recyclables to the curb. After applying for medical certification, these residents may opt to have their recycling container picked up from their backyards.

In Bellevue, Wash., drivers often pick up recyclables from the porches and doorsteps of disabled and senior citizens even though the community's recycling program doesn't offer this service. San Francisco's hauler provides special pickup services for variable fees. The service is based on the distance its workers have to travel from the curb, whether or not they have to climb stairs, and other detailed criteria.

Special Rates on Pay-As-You-Throw and Other Programs

Although many California communities have employed PAYT programs, officials may not be aware of the impact that these programs may have upon their low-income neighborhoods. Cities can offer economic incentives to encourage low-income residents to participate in PAYT programs:

- Free bags or stickers.
- A reduction in the base service charge.
- Assistance through existing utility programs.
- A percentage discount.
- A reduced per-household collection charge.
- A credit on their recycling/solid waste bill.

Before offering support, communities should develop a system for qualifying residents for PAYT assistance. Communities can use established standards such as federal poverty level guidelines, or other federal, State, or local guidelines that establish low-income status.

In Pasadena, officials sent a note to all households inviting senior citizens and disabled residents to call for a 10 percent discount on their PAYT rate. Currently 5 percent of the population receives these special rates. San Jose offers this same program but at a 30 percent discount. The city uses household size and income as the qualification criteria. In Seattle, households below the federal poverty level qualify for a low-income PAYT rate.

Low-income single-family households, seniors, or persons with physical disabilities may see paying for yard waste recycling as too difficult or too costly. Therefore communities can offer these residents a "break" by offering free or discounted yard waste removal. Falls Church, Va., offers low-income persons who qualify free stickers for its "bag and tag" program for yard waste removal.

Promote Recycling in Schools

Many cities have planned or are planning to establish recycling education in schools. In-school recycling education is extremely important in areas of diversity. In many minority homes, school children are the only English speakers of the household. By giving the recycling message in school, kids can take the message home and pass it on to family members.

Waste Audits/Survey/Database to Track and Target Special Populations

In order to increase recycling rates, learn about the diversity and special recycling needs of your community. Multilingual and other diverse outreach material can be more effective and less costly if outreach coordinators know what neighborhoods require particular materials. This is especially true for communities that produce outreach materials in separate languages.

Brochures that include more than one language are more versatile. Just as coordinators track different recycling sectors, such as commercial and residential, they should track the recycling rates of different neighborhoods in order to tailor and target their outreach program.

By far the most effective technique involves onsite waste auditing and database tracking. However, some communities may find this technique too costly and/or too time-consuming. Outreach coordinators can instead use local demographic information and participation data submitted by the community's hauler in order to track the recycling activities of its diverse populations.

The City of El Monte hired a consultant to perform 4,500 on-site waste audits of mostly non-residential generators during the past four and a half years. The audits included 475 apartment complexes and 34 mobile home parks containing 1,500 mobile home units. The city's consultant used the information from these waste audits to establish an extensive database, which details the type of disposal/recycling service offered, amount of material generated, and the frequency of pickup. The consultant then used information from the database to focus bilingual outreach and technical assistance towards businesses, homeowners, and apartment managers.

Recycling officials in Sunnyvale are currently studying the community's demographics to determine the necessity of adding additional languages to their outreach materials. San Jose's waste hauler, GreenTeam, currently selects target areas based on its common knowledge of the city and its neighborhoods. GreenTeam's outreach coordinator acknowledges that having access to a database of San Jose's neighborhoods would help assist the hauler in selecting target neighborhoods.

Costs, Economics, and Benefits

Additional Staffing Costs

Some communities incorporate diversity outreach into their current outreach program and rely upon their recycling/solid waste coordinator or outreach person to manage outreach to diverse populations. Other communities hire a specialized diversity outreach coordinator. Some communities may elect to hire multilingual staff to handle in-house translations, audits, and answering questions by phone.

Additional Printing Costs

The cost of printing materials in other languages is usually the same as printing materials in English. Communities may incur additional costs when printing outreach materials in separate languages, because documents will have to be produced separately. Likewise, printing, production, and/or design costs may increase if communities use more graphics to convey their recycling message.

Survey/Auditing Costs

According to one private consulting service that specializes in recycling outreach, its staff requires five to eight hours to perform an audit of a typical business, residence, or multifamily unit. A typical audit consists of an actual on-site interview, a report, data entry, and follow-up assistance. Onsite bilingual auditors used by the consultant charge \$45 to \$50 per hour. Communities can use their own outreach personnel to conduct audits and track information, although this may require training costs.

Translation Costs

Translating written outreach materials into other languages typically adds 15 to 20 percent to the cost of production. According to one private consultant service, translating recycling material costs more because often finding the right translations for recycling-related issues is difficult and time-consuming. California has many companies that provide professional translating services for technical documents.

San Francisco's solid waste management program uses a professional translation service, which charges \$45 per hour, to translate its outreach material into different languages. Computer retailers also offer a variety of off-the-shelf computer software programs that can perform translations. However, communities should be cautious when purchasing translation programs because certain software may be unable to properly translate the technical words used in recycling outreach materials.

Producing videos and public service announcements in different languages costs approximately 40 percent to 50 percent of the cost of the original version in English. Assuming a city pays \$20,000 to produce its first version, a Spanish version would cost an additional \$8,000 to \$10,000. Reasons for this increased cost include added time for translations, increased costs of multilingual speakers, and increased costs of production (many languages require more time to get the same message across).

Additional Distribution Costs

Communities may incur additional distribution costs when mailing multiple copies of the same outreach material in different languages. All communities contacted agreed that mailing

multiple brochures costs more than mailing one multilingual brochure, even though the multilingual brochure would require more postage than just a single-language brochure.

What Local Government Can Do

A city can require contractors to perform outreach/education. In San Jose, haulers have agreed in their contracts with the city to undertake outreach programs that support the city's objectives.

A community can require its hauler to provide service to multifamily dwellings in order to reach its lower-income constituents.

The community may utilize contract language that requires haulers to track recycling participation rates for various neighborhoods. Cities with good relationships with their waste haulers can focus the haulers' outreach on diverse populations without adding new language to their contracts.

Informal Agreements

GreenTeam, one of San Jose's waste haulers, is required by contract to perform five outreach campaigns per year. Although the contract language does specify that the contractor must reach diverse populations, the contract does not specify the cost or size of these campaigns. The city meets with the waste hauler to help develop the campaigns and help select target audiences. Because GreenTeam wants to continue its contract with the city, it typically goes above and beyond the contract requirements by performing such things as door-to-door outreach in multiple languages (English, Spanish, Vietnamese, and other languages).

Funding Mechanisms

Generally, communities fold the cost of outreach to diverse populations within their overall budget for outreach or recycling programs in general. Many cities seek grants to offset their costs. The U.S. Environmental Protection Agency (U.S. EPA), the California Integrated Waste Management Board (CIWMB), and the National Association of PET Container Resources (NAPCOR) have awarded grants to cities to use in implementing recycling outreach to diverse populations.

Tips for Replication

- Allocate staffing and budgets for outreach to address the unique situations among diverse populations.
- Encourage your city's diverse citizens to participate in your recycling program by making them feel that they are a part of the city.
- Keep programs simple.
- Produce and distribute multilingual education and outreach materials. Generating one brochure with a recycling message in multiple languages can help keep printing costs to a minimum.
- Have multilingual staff members available to field phone calls.
- Use bilingual "foot power" to get the recycling message out.
- Visit people on-site and help them solve their recycling-related problems.
- Target specific cultural events within the community such as Cinco de Mayo and Chinese New Year festivals with multilingual outreach displays.
- Perform waste audits and create a database in order to track the characteristics and special needs of each type of waste generator in the city.
- Stress cost savings through recycling.

Case Study: City of Monterey Park *Overview*

The recycling coordinator of Monterey Park describes language as the main recycling challenge relating to population diversity issues. The citizens of Monterey Park speak a variety of languages other than English (such as Spanish and Chinese). A majority of Monterey Park's population (81 percent) is either of Asian, Pacific Islander, or Hispanic origin.

Program Description

Monterey Park has developed several trilingual brochures and public displays to promote recycling. The city first produced a trilingual brochure on bulky item recycling to address the issue of tenant turnover in multifamily units. The brochure was printed on one 8½-inch piece of paper and tri-folded. The main element of the brochure was a table listing the name of area thrift stores and the materials they accept. The creators of the brochure included text in three languages (English, Spanish, and Chinese).

Through grant funding, Monterey Park has also targeted outreach of materials such as PET and used motor oil. It has produced a trilingual brochure and public display on PET recycling, and a trilingual display, magnets, and brochures on recycling used motor oil.



Monterey Park's recycling display for community events uses English, Spanish, and Chinese in the text.

The city reached out to elementary students with a storm pollution prevention and used oil recycling program and produced a trilingual brochure on used cooking oil (distributed to area restaurants).

As part of a regional effort, Monterey Park contributed funds towards public service announcements and radio advertisements in English and Spanish (produced by Los Angeles County).

Community officials are also considering simplifying Monterey Park's recycling program. A recycling task force, comprised of community members and established by the city, reviewed the city's program and found its complexity to be an issue in reaching the community's diverse populations.

Costs, Economics, and Benefits

Monterey Park translates its outreach material inhouse. Based on the staff member's salary and the amount of time spent translating materials, Monterey Park pays less than \$150 a year for translation services. This equals about \$75 for a trilingual, 3-panel, 8½ by 11-inch brochure.

Professional translators charge approximately \$300 per 8½-inch page.

Table 2: 1990 Demographics of Monterey Park, Calif.

Population	65,526
White	7,129
Black	330
Asian or Pacific Islander	34,022
American Indian, Eskimo, or Aleut	104
Hispanic origin	19,031
Other	122
Persons above 65 years of age	8,375
Median family income	\$36,808
Median family income Families below the poverty level	\$36,808 13%
*	,
Families below the poverty level	,
Families below the poverty level Language Spoken	13%
Families below the poverty level Language Spoken Persons 5 years and over Speak a language other than	13% 57,022
Families below the poverty level Language Spoken Persons 5 years and over Speak a language other than English	13% 57,022 41,630

Source: 1990 U.S. Census.

To translate English into Chinese, an in-house staff member translates materials and then uses a specialized "off-the-shelf" program to typeset Chinese characters. The city manually translates English to Spanish and uses a standard word processing program to typeset the letters. Most word processing programs can produce the additional letters and symbols needed for word processing in Spanish.

Informal agreements between departments allow the use of bilingual staff to translate and typeset bilingual outreach material. Although the city pays bilingual staff more, it limits its need to hire a specialized multilingual staff member to translate recycling outreach materials.

Funding Mechanisms

Monterey Park pays for its recycling outreach from its portion of money received from the sale

of curbside recyclables, which is approximately \$20,000 per year. With such a low budget, the city cannot afford to hire outreach staff to focus on diverse neighborhoods. Nor can the community always afford to have multilingual outreach materials professionally produced. Instead, the community uses alternative methods to fund production of its diversity outreach materials.

For instance, it requires its exclusive residential waste hauler to pay the costs of multilingual literature produced at the startup of new programs (curbside recycling and yard waste recycling). Monterey Park uses in-house staff to translate outreach materials into different languages. The city has also received grants from various organizations to supplement the costs of multilingual outreach. The city has received grants from the League of California Cities, NAPCOR, and the CIWMB.

Case Study: El Monte, California *Overview*

Although El Monte's recycling program is still in its infancy, the community has an extensive diversity outreach program. This includes multilingual on-site technical assistance to businesses, multifamily units, and nonprofit organizations. The multifamily multilingual outreach program has reached all of the community's 34 mobile home parks and 450 of its 475 apartment/condominium units.

According to Polis Associates, Inc. (contracted by the city to manage its recycling program), the recycling rate at multifamily units rose from 1 percent in 1995 to 31 percent in 1998. Businesses and industries raised their recycling rate from 11 percent in 1995 to 57 percent in 1998.

El Monte is a very diverse city (see Table 3). More than 67 percent of El Monte's population is of Hispanic origin. Getting the recycling message out is a big challenge for officials. More than 42,000 of the city's 115,000 residents do not speak English very well. Almost 58,000 speak Spanish, and more than 10,000 residents speak Asian languages. Language was a major challenge to overcome at multifamily units, because Spanish and Asian languages were the dominant languages spoken by managers of these facilities.

Table 3: Demographics of El Monte, Calif.

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115,119		
16,126		
820		
11,846		
229		
76,991		
197		
6,824		
15,624		
62%		
12%		
\$28,034		
18%		
94,680		
69,599		
61%		
11%		
28%		
42,816		

Source: 1990 U.S. Census and City of El Monte fact sheet, City of El Monte Planning Division, 1998.

The frequent turnover of managers at multifamily facilities complicated this challenge. Although many of El Monte's apartment units received recycling service, contamination and misuse of recycling facilities was a major reason for low recycling rates in the multifamily sector. Language was not such a barrier to getting the recycling message to businesses, because most business owners tend to be bilingual.

The transient nature of the city's residents and small business owners is another challenge. The community has a high turnover of rental units, and 60 percent of the housing units within the community are rentals. Many times, owners of businesses do not reside within the community and

the managers in charge of the businesses move often from job to job. Twenty percent of the recycling newsletters mailed regularly to businesses, industry, and multifamily units are returned, despite constant updating of mailing lists.

Another challenge that recycling officials and auditors must overcome is the distrust of residents and business owners who speak little or no English. Many residents within the community may not be legal U.S. residents. They may shy away from contact with officials, fearing that the recycling staff member may be from the U.S. Immigration and Naturalization Service. Business owners may perceive that recycling officials are checking for code violations and therefore may be resistant to interviews.

Program Characteristics

The city prints some outreach materials in Spanish but focuses primarily on using bilingual waste auditors to contact businesses and multifamily complexes. According to the city's recycling manager, El Monte's recycling success is due to bilingual waste auditors. Bilingual waste auditors have visited every business in the city and more than 400 apartments, condominiums, and mobile homes. Many of the auditors are local residents who have been trained at a local community college. They are sensitive to the needs of area residents, as well as to cultural differences and economic situations.



Bilingual recycling brochure used in El Monte.

According to Dave Polis of Polis Associates, Inc., 75 to 80 percent of managers at multifamily complexes have at least some difficulty

understanding English. The recycling manager believes that area businesses, apartments, condominiums, mobile homes, and nonprofit organizations are more responsive to questions and recycling assistance given by bilingual auditors.

After staff members perform audits, they record whether future follow-up should be in a language other than English. The city then sends follow-up announcements and recommendations in the appropriate language.

The community's multifamily outreach includes identifying property managers and owners and arranging individual meetings with them. Once officials have tracked down who is in charge of paying the waste bill, a bilingual waste auditor sets up an on-site meeting and reviews the waste generated. Officials then suggest recycling options, such as appropriate locations for recycling bins and specific outreach materials (bilingual tenant brochures and flexible bilingual signage) that can maximize recycling. Officials also offer communication assistance between apartment owner or manager and their hauler.

Polis Associates, Inc., offers additional services to increase recycling rates in diverse populations. It distributes a brochure and poster with text in both English and Spanish, side by side, to encourage residents of multifamily buildings to recycle. Its auditors help managers distribute brochures and locate posters. The recycling manager has also produced three bilingual (Spanish and English) videos on recycling-related issues (business recycling, paper recycling, and household hazardous waste) and has released several bilingual local public service announcements on recycling.

Costs, Economics, and Benefits

El Monte pays for its recycling program through an IWMA fund. Waste Management, Inc., provides residential recycling and waste services for housing units of four persons or less and charges residential units directly. The city receives limited funding from grants for the collection of used motor oil and contracts with a separate company for providing curbside collection of household hazardous waste and used motor oil. A variety of contractors provide the city's commercial recycling and waste services.

Owners of businesses, multifamily/condominium units, and nonprofit organizations pay contractors directly for these services. El Monte contracts with Polis Associates, Inc., for managing its recycling program, performing waste audits, and for providing a recycling technical assistance service. The city pays a yearly fee of \$170,000 for this service, which includes community outreach.

Case Study: San Francisco

Overview

San Francisco is a diverse city with more than 700,000 people, according to the 1990 U.S. Census. More than 40 percent of San Francisco's population speaks a language other than English, and more than 20 percent do not speak English "very well."

In 1998 the city's waste diversion rate was 40 percent (35 percent for residential waste diversion and 46 percent for commercial waste diversion). The city uses a variety of different media to reach out to its diverse population. According to the city's recycling coordinator, different cultures respond to different media. The city's recycling outreach department hires an outside firm to oversee community focus group meetings in order to determine the best ways to reach the city's population.

Outreach officials learned from these focus group meetings to target residents of different cultures differently, because certain media may be more motivational to some cultures than others. Some cultures may respond to television and newspaper advertisements, while others may require more direct one-on-one outreach. Information retrieved from the focus group meetings also showed that recycling officials might need to educate certain residents on the basics of recycling before focusing on more detailed recycling issues.

Program Characteristics

City coordinators undertake two neighborhood campaigns each year to increase recycling rates and cover the entire city every three years. The neighborhood campaigns consist of direct mail, phone banking, advertisements in local papers, presentations, posters, and street signs. During the campaign, the city mails trilingual postcards on recycling and waste reduction to virtually every home in the neighborhood.

Table 4: Demographics of San Francisco

Population	724,000
White	337,118
Black	76,343
Asian or Pacific Islander	205,686
American Indian, Eskimo, or Aleut	2,635
Hispanic origin	100,717
Other	4,460
Persons above 65 years of age	105,380
Median family income	\$40,561
Families below the poverty level	10%
Language spoken	
Persons 5 years and over	688,689
English speaking	58%
Speak a language other than English	292,090
Spanish speaking	11%
Chinese speaking	17%
Tagalog speaking	4%
Other languages	10%
Do not speak English "very well"	162,167

Source: 1990 U.S. Census and San Francisco Fact Sheet, September 1999.

Multilingual outreach staff members personally contact 30,000 households per year with their recycling and waste reduction message. The city publishes monthly multilingual (Chinese, Spanish, and English) advertisements in neighborhood newspapers.

Recycling officials have a number of multilingual brochures, posters, flyers, and other media pieces to use in neighborhood presentations that are held at events such as festivals and neighborhood meetings. The city also offers youth organizations the chance to win \$1,000 to \$2,000 for increasing recycling in their neighborhood.

In the past, the city has produced separate brochures printed in different languages. Although many of these materials are still used in recycling outreach, the city currently produces and mails single brochures written in at least three languages. The city's outreach coordinator believes that producing and mailing single-language brochures is less effective than sending multilingual brochures, because citizens may receive a brochure in a language that they cannot understand.

The city is in the process of simplifying the pickup of recyclables and waste by implementing a three-cart system: one 32-gallon cart for commingled dry recyclables, one 32-gallon cart for yard trimmings and food discards, and a 32-gallon cart for remaining trash.

The recycling outreach department has recently switched from using icons to photos in its recycling brochures and on stickers. "Real-life" materials are shown in the photos, allowing residents to see, very clearly, what items are acceptable to place in their recycling bins. According to the city's recycling coordinator, the use of pictures has received positive feedback from residents.

A separate company provides household hazardous waste pickup to all residents on an on-call basis. The company offers seniors and disabled residents free service, which they can apply for when a company representative arrives to pick up their household hazardous waste. For the most part, the company accepts the word of the residents about their senior or disabled status.

The city's waste hauler also offers special rates for seniors and disabled residents, though the hauler requires that the residents provide proof. The hauler also provides special pickup services for variable fees based on the distance from the curb, whether or not the collector must climb stairs, and other criteria.

The city joins with its hauler in placing trilingual stickers and posters in its apartment buildings. It provides residential oil collection and on-call oil collection to all residents. Residents can also request bulky item pickup two times per year for recyclable items such as appliances, metal, yard trimmings, and other large currently non-recyclable materials.

San Francisco hosts a trilingual hotline that plays recycling and source reduction messages in English, Cantonese, and Spanish. San Francisco restaurant owners and managers can obtain a recycling guide for restaurants in either English, Chinese, or Spanish from the city.

The city also has an extensive recycling Web site, under "departments and city agencies/recycling" at www.ci.sf.ca.us/. To improve recycling collection, signs on recycling containers in the financial district are in English, Chinese, and Arabic, the language most commonly spoken by custodial staff.

The city has also improved recycling in areas visited by tourists and residents. For instance, it has attached crab catcher metal racks to many trash receptacles to help collect recyclables. The city has also ecopop receptacles on top of trashcans to facilitate recycling by residents and tourists.

Costs, Economics, and Benefits

Although the recycling outreach department pays more to reach out to diverse populations, it does not separately track these costs as a percentage of its overall budget. San Francisco typically spends about \$120,000 (\$60,000 per campaign) per year on the neighborhood outreach campaigns. The city also pays to translate, design, print, and distribute all multicultural outreach materials.

The city uses professional translators to convert its outreach material to different languages. The translating services charge approximately \$135 (three hours at \$45 per hour) to translate an article or advertisement. They charge approximately \$225 (five hours at \$45 per hour) to translate a one-page brochure. The department pays the same to print and mail either separate single-language brochures or one multilingual brochure, because multilingual brochures are proportionally expanded to accommodate for the additional languages.

For example, the city would pay two-thirds more for a three-language brochure than a single-language brochure. The brochure design is the only other additional cost incurred by the city to produce multilingual brochures. Design costs the department more due to the difficulty of creating an easily readable brochure. Organization of words and selection of colors play a more

important role in multilingual brochures. For instance, readers of a three-language brochure might more easily distinguish their language if it is printed in a different color.

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Web sites

U.S. EPA pay-as-you-throw Web site: www.epa.gov/epaoswer/non-hw/payttop19.htm

The Translator's Home Companion www.rahul.net/lai/companion.html

Increasing Diversion in Multifamily Residences www.scced.org/hotissues/hot_frame.html

Credits and Disclaimer

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